

SOV/1948

# Chemistry of Mineral Lubricating Oils

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Chemistry of Mineral Lubricating Oils

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Ch. V. Lubricating Oil Properties Associated With Their  
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1. Corrosive properties of lubricating oils
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AVAILABLE: Library of Congress

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6-22-59

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11(4), 15(5)

PHASE I BOOK EXPLOITATION

SOV/1777

Losikov, Boris Vital'yevich, Nikolay Gavrilovich Puchkov, and Boris Abramovich Englin

Osnovy primeneniya nefteproduktov (Main Aspects of Petroleum Product Utilization) 2d ed., rev. and enl. Moscow, Gostoptekhizdat, 1959. 566 p. 6,500 copies printed.

Exec. Ed.: L.A. L'vova; Tech. Ed.: I.G. Fedotova

**PURPOSE:** This book is intended for engineers and technicians of the petroleum industry and other branches of industry connected with the production of petroleum products and their utilization.

**COVERAGE:** In the opinion of the authors, the increasingly growing demand for upgraded fuels and lubricants to operate machines and engines of the most modern systems and designs has made necessary the development of a new branch of science dealing with the use of such petroleum products as fuel, lubricating oil, and grease. In the first part of this work, which is a revision

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Main Aspects of Petroleum (Cont.)

of the first edition, the authors discuss the various kinds of fuels used to run internal combustion engines with spark plug ignition, diesel engines, and jet engines. The chemical composition of these fuels, their properties, stability, ignition, combustion and behavior during various phases of operation are analyzed. Considerable attention has been given both to the additives which improve antiknock properties of gasoline as well as to the admixture of ethyl fluids. The problem of reducing carbon deposition, scaling and gumming, as well as of the corrosion of various engine parts and mechanisms are also discussed at length. The second part of this work is devoted to the use of lubricants, their properties, viscosity, oxidation resistance, etc. The authors discuss problems connected with the lubrication of internal combustion engines, transmission systems, jet engines, turbojet engines, turboprop engines and compressors of different types. Additives which improve the lubricating properties of oils, their oxidation resistance, and wear resistance are also discussed. Chapters I, II, and IV of Part I were written by Candidate of Technical Sciences, B.A. Englin; Chapters III and V of Part I and a section of Chapter III of Part II were written by

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# Main Aspects of Petroleum (Cont.)

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N.G. Puchkov. Part II was written by Doctor of Technical Sciences, Professor B.V. Losikov, with the exception of the section Lubrication of Instruments which was written by Candidate of Chemical Sciences G.I. Fuks, and the section Viscosity of Lube Oil Additives which was written by Candidates of Technical Sciences, N.I. Kaverina and N.S. Puchkov. The text contains numerous graphs and tables as well as a number of bibliographic references listed separately for each chapter. There are 573 references of which 380 are Soviet.

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Introduction

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### PART I. FUEL UTILIZATION

Ch. I. General Operating Properties of Fuels  
 Fuel evaporation  
 Fuel combustion

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Losikov, B. V.

S/065/60/000/007/002/002  
E194/E184

5.4300

AUTHORS:

Losikov, B.V., Rubinshteyn, I.A., and Sobolev, Ye.P.

TITLE:

A Method of Studying the Oxidation Kinetics and Thermal-Oxidation Stability of Petroleum Products //

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No 7, pp 47-52

TEXT:

This article describes an oxygen absorption test of the non-circulatory type which is not affected by variations in atmospheric pressure during the course of the test and in which there is provision for replacing oxygen consumed during the experiments. Oxygen absorption tests may be made of satisfactory repeatability when the equipment is sealed off from the atmosphere but the oxidation kinetics are liable to be influenced by deficiency of oxygen. Apparatus in which the oxygen can be replaced as it is used up is usually affected by small variations in atmospheric pressure. The rate of oxidation depends on the oxygen dissolved in the sample which is not much affected by small changes in pressure, which mainly affect the accuracy of the readings. To overcome this problem the oxygen absorption test described in the article is provided with a differential manometer, illustrated schematically in

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A Method of Studying the Oxidation Kinetics and Thermal-Oxidation Stability of Petroleum Products

Fig 1, in which the pressure in the equipment is balanced against that in a sealed-off bulb maintained in a thermostat. The U-tube is filled with dibutylphthalate. With this arrangement the pressure in the apparatus may be maintained constant irrespective of changes in the atmospheric pressure. When tests are carried out under air it is necessary to replace the oxygen used up and this is done by filling the measuring burette with oxygen before the start of the test so that the process of making a measurement of oxygen absorbed replaces the oxygen used by the system. These two principles are combined in the oxygen absorption apparatus illustrated diagrammatically in Fig 2. The equipment contains two test vessels with overhead condensers in an oil bath and provided with magnetic stirrers. The pressure indicator and gas burette described above are connected to the test vessels through a capillary tube. Arrangements are provided to fill the equipment with clean dry air or oxygen and to water jacket the gas burette and pressure indicator. The water jackets maintain constant temperature to within  $\pm 0.05^\circ\text{C}$  for 100 hours and the oil bath to within  $\pm 0.2^\circ\text{C}$  at test temperatures up

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A Method of Studying the Oxidation Kinetics and Thermal-Oxidation Stability of Petroleum Products

to 150 °C. The procedure for setting up the apparatus is described in detail, particularly the method of establishing the pressure in the test vessels. Two tests are run simultaneously on 20 g samples. When the equipment is ready it is heated up, which takes about 30 minutes, the pressure is adjusted, the magnetic stirrers are started and the test is commenced. The method of conducting the test is explained in detail and oxygen absorption measurements are made every hour. Thus, each reaction vessel is connected to the measuring system for 30 minutes and shut off for 30 minutes. Repeatable oxygen absorption curves were obtained in 24 hour tests on diesel fuel and oils at temperatures ranging from 100 to 170 °C. Typical test results are plotted in Fig 3. The procedure was tested by S.R. Sergiyenko and P.N. Galich of the Laboratory of High Molecular Compounds of the Institute of Geology AS USSR who also obtained good reproducibility of oxygen absorption curves in 100 hour tests at 150 °C. The sensitivity of reading is about 0.1 ml of oxygen at 25 °C with the pressure maintained constant. There are 3 figures, and 1 table.

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56551

S/081/62/000/005/076/112  
B162/B101

11.0140

AUTHORS: Losikov, B. V., Smirnov, M. S., Aleksandrova, L. A.,  
Rubinshteyn, I. A., Ocheretyanyy, I. T., Dneprov, V. N.

TITLE: Application of neutralizing substances in engines working  
on high-sulfur diesel fuels

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 526,  
abstract 5M200 (Sb. "Prisadki k maslam i toplivam".  
M., Gostoptekhnizdat, 1961, 381-388)

TEXT: Results of tests on diesel engines type 10 - 10.5/13 (1Ch - 10.5/13),  
20 - 8.5/11 (2Ch - 8.5/11), IT-9 - 3 (IT - 9 - 3), 3D - 6 (3D - 6),  
M - 50F (M - 50F), and 2D - 100 (2D - 100) working on fuels with a sulfur  
content of 1.0 to 1.6% with ammonia gas fed to the combustion chamber  
of the engines in an amount of 0.08 - 0.14% by weight with respect to the  
fuel are given. It is shown that ammonia is a highly efficient means of  
reducing corrosion wear of the engines, preventing the formation of  
deposits and the burning of piston rings. It is found that the action

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Application of neutralizing ...

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B162/B101

of ammonia is linked with its ability of slowing down the formation of sulfuric anhydride during the combustion of the sulfur contained in the fuel. An explanation is given of the mechanism by which the ammonia acts on the basis of the idea of radical-chain mechanism of oxidation of sulfur compounds. [Abstracter's note: Complete translation.]

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26522

S/065/61/000/008/007/009

E194/E135

11.0170

AUTHORS:

Losikov, B.V., Fat'yanov, A.D., Mikulin, Yu.V.,  
Aleksandrova, L.A., Koznov, G.G., and Berezina, R.M.

TITLE:

The use of residual fuels in gas turbines

PERIODICAL:

Khimiya i tekhnologiya topliv i masel,  
1961, No. 8, pp. 47-53

TEXT:

The mechanism of deposit formation and corrosion in gas turbines using residual fuels containing vanadium and sodium is discussed. Possible methods of avoiding the vanadium corrosion include injection into the combustion chamber of substances which react with vanadium pentoxide and the more convenient use of fuel additives. The object of the present work was to check, on typical materials used in gas turbines, the corrosivity of corrosion products of high-sulphur marine heavy-fuel grade  $\Phi\kappa$  -5 (Fs-5) and to study the use of additives to reduce this corrosion. The tests were made on a model combustion chamber which had previously been used for testing high sulphur distillate fuels but for the present work fuel heating equipment was provided. The test samples were made up as plates of 40 x 25 x 4 mm which were

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The use of residual fuels in gas ....

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placed in the path of flow of the combustion products. Corrosion was assessed by change in weight after the specimen had been exposed in the chamber and cleaned by electrolytic treatment in a solution of sodium carbonate and sodium hydroxide. It was found that corrosion is most intense in the first 2 - 3 hours and that it has reached a practically constant value at the end of 5 hours so that there was no need to continue the tests longer than this. The reference fuel was grade  $\Phi$ -12 (F-12) containing 130 parts per million sodium and no vanadium. The vanadium content of the other fuels ranged from 16 to 35 parts per million vanadium. The first tests were made with nickel base alloys NI-435 (EI-435) and NI-602 (EI-602) which show little vanadium corrosion at temperatures below 650-700 °C; however, at higher temperatures the rate of corrosion rises rapidly. Alloys based on iron such as grade NI-481 (EI-481) are much more affected by vanadium than are the nickel alloys, particularly at the higher temperatures. The higher the vanadium content of the fuel, the lower the temperature at which the rising inflection of the corrosion curve occurs. At a gas temperature of 800-850 °C appreciable corrosion is observed with 10 ppm vanadium in the fuel, whereas at 630-680 °C corrosion

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The use of residual fuels in gas ....

increases appreciably only with fuel of 30 ppm vanadium or more. In general, at temperatures of 650-850 °C the combustion products of fuels containing 14 - 35 parts per million vanadium increased the rate of corrosion by a factor of 4 to 15, depending on the alloy used. The effect of additives was checked on fuel grade F-12 (no vanadium) and Fs-5 containing 27 parts per million vanadium and 9 parts per million sodium using alloys EI-602, EI-481 and EI-417. The additives used were organic compounds of magnesium that are readily soluble in heavy fuels but differing in the structure of the organic radical. The use of additive to the extent of 0.2% weight of fuel greatly reduced vanadium corrosion. It was shown that some organic magnesium compounds are much more effective than others. It is concluded that with 30 parts per million vanadium in the fuel the use of 0.016% magnesium in the form of soluble organic compounds practically completely prevents vanadium corrosion. Tests were also made with injection into the combustion chamber of ammonia to the extent of 0.5% by weight of the fuel. This also practically prevents vanadium corrosion of the nickel and iron alloys within the temperature range tested. ✓

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The use of residual fuels in gas ...

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Use of ammonia at the rate of 0.2% weight is less effective. The best results were obtained when the ammonia was injected before the combustion zone. A further advantage of using soluble compounds as against the suspensions sometimes used is that erosive wear of the turbine blades is reduced. A mechanism of action of the additives is suggested.

There are 6 figures, 1 table and 14 references: 5 English and 11 Soviet (including 3 translations from Proceedings of World Petroleum Congress VII). The four most recent English language references read as follows:

Ref.1: A. Garner, P. Green, R. Harper, F. Pegg. J. Inst. of Petrol., Vol.39, 278, 1953.

Ref.2: Proc. Inst. Mech. Eng., Vol.168, No.3, 1954.

Ref.4: P. Lloid, R. Probert. Proc. Inst. Mech. Eng., Vol.163, 206, 1950.

Ref.9: H. King, H. Nutt. Trans. ASME, Vol.78, No.1, 185-196, 1956.

Card 4/4

LOSIKOV, B.V.; SMIRNOV, M.S.; RUBINSHTEYN, I.A.; ALEKSANDROVA, L.A.;  
OCHERETYANNYY, I.T.; DNEPROV, V.N.

Use of "neutralizing" substances in engines operating on high-  
sulfur diesel fuels. Khim.i tekhn. topl.i masel 6 no.2:46-52  
F '61. (MIRA 14:1)

(Diesel fuels)

LOSIKOV, B.V.

Useful manual. Khim.i tekhn. topl.i masel 6 no.3:71-72 Nr '61.  
(MIRA 14:3)

(Lubrication and lubricants)



LOSIKOV, B.V.; FAT'YANOV, A.D.; MIKULIN, Yu.V.; ALEKSANDROVA, L.A.;  
KOZLOV, G.G.; BEREZINA, R.N.

Utilization of residual fuel oils in gas turbines. Khim.i  
tekh.topl.i masel 6 no.8:47-53 Ag '61. (MIRA 14:8)  
(Gas turbines--Corrosion)

ABRAMSON, D.S., kand. tekhn. nauk, red.; LIPSHTEYN, R.A., kand. tekhn. nauk, red.; LOSIKOV, B.V., prof., doktor tekhn. nauk, red.; YEVSTAF'YEVA, N.P., red. izd-va; EL'KIND, V.D., tekhn. red.

[Preventing the corrosion of internal combustion engines and gas-turbine units] Bor'ba s korroziei dvigatelei vnutrennego sgoraniia i gazoturbinnykh ustanovok. Moskva, Mashgiz, 1962. (MIRA 15:4)  
295 p.

1. Vsesoyuznyy sovet nauchno-tekhnicheskikh obshchestv.  
(Corrosion and anti-corrosives)  
(Gas and oil engines) (Gas turbines)

SEMENIDO, Ye.G., prof., doktor tekhn. nauk; ENGLIN, B.A.; PAPOK, K.K.,  
prof. doktor tekhn. nauk; ZARUBIN, A.P.; RAGOZIN, N.A.;  
SHIMONAYEV, ?S.; CHERTKOV, Ya.B.; LIVSHITS, S.M.;  
BESSMERTNIYY, K.I.; LOSIKOV, B.V.; SABLINA, Z.A.; ROZHKOV, I.V.;  
GUREYEV, A.A.; FAT'YANOV, A.D.; ZRELOV, V.N.; ZARUDNIYY, P.P.;  
BRATKOV, A.A.; BARON, I.G.; LEVINA, Ye.S., ved. red.; TITSKAYA,  
B.F., ved. red.; FEDOTOVA, I.G., tekhn. red.

[Motor, jet, and rocket fuels] Motornye, reaktivnye i raketnye  
topliva. 4., perer. i dop. izd. Moskva, Gos. nauchno-tekhn.  
izd-vo neftianoi i gorno-toplivnoi lit-ry, 1962. 741 p.  
(MIRA 15:2)

(Rockets (Aeronautics))—Fuel)  
(Jet propulsion)  
(Motor fuels)

34255

S/114/62/000/002/002/004  
E194/E955

11.0140  
26.2120  
AUTHORS:

Losikov, B.V., Professor, Doctor of Technical Sciences, Fat'yanov, A.D., Engineer, Mikulin, Yu.V., Engineer and Aleksandrova, L.A., Candidate of Technical Sciences

TITLE: An investigation of the influence of combustion products of sulphurous distillate fuels on the constructional materials of gas turbines

PERIODICAL: Energomashinostroyeniye, no.2, 1962, 34-36

TEXT: The use of gas turbines is to be considerably extended and they will be required to run on fuel containing about 1% sulphur. It was accordingly of importance to study the influence of fuel combustion products on the corrosion of turbine parts. In principle both high and low temperature corrosion might occur, but the former is the more probable in gas turbines. The tests were made on a small laboratory combustion chamber with a fuel consumption of about 1 kg per hour in which were placed specimens made of sheet material, discs and runner blades of gas turbines. The tests were made with diesel fuel containing from 0.2 to 1.6% sulphur, X

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An investigation of the ...

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taking as a standard the low-sulphur diesel fuel grade  $\Delta C$  (DS) to standard  $\Gamma OCT 4749-49$  (GOST 4749-49) containing 0.2% sulphur, which is currently used in gas turbines. Corrosion was assessed by weighing the specimens. Before weighing they were cleaned electrolytically in a molten bath of 40%  $Na_2CO_3$  and 60%  $NaOH$  at a temperature of 500-550°C with a current density of 0.25 A/cm<sup>2</sup>. In the first series of tests measurements were made of the corrosion resistance of alloys exposed to corrosion products of sulphurous fuels. The exposures were made in steps of ten hours using steel based on iron (grade  $\Delta M 481$  (EI 481)) and on nickel (grade  $\Delta M 437B$  (EI 437B)) as compared with an ordinary steel grade 10 exposed for 50 hours at a temperature of 650°C. The nickel alloy was practically uncorroded at this temperature; there was appreciable corrosion of the iron-based alloy; and the steel grade 10 was considerably corroded. With steels based on iron it is found that increasing the sulphur content of the fuel may reduce the rate of corrosion. This was confirmed on another iron-based steel, grade 2X13 (2 Kh 13). Curves of corrosion loss as functions of temperature

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An investigation of the ...

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in combustion products of fuels containing 0.2 and 1% sulphur were plotted for nickel-based steels grades EI 437B,  $\Sigma$ M 602 (EI 602) and  $\Sigma$ M 435 (EI 435) and also for a number of other steels grades EI 481, 3X13 (3 Kh 13),  $\Sigma$ M 417 (EI 417),  $\Sigma$ M 612 (EI 612),  $\Sigma$ M 607, (EI 607),  $\Sigma$ M 617 (EI 617) and others. The results show that the corrosion resistance of the steels diminishes above a temperature of 600-700°C for iron-based steels and above 750-800°C for nickel-based steels. As sea-water might enter the fuel or the combustion air of marine gas turbines, admixtures of salt water were made to the combustion products. When salt water was present in the air to the extent of 1% weight of the fuel, the corrosion of alloys by combustion products was higher with sulphurous fuels than in low sulphur. If the amount of salt water is reduced to 0.3% there is considerable reduction in the corrosion loss with sulphurous diesel fuel. As turbines may operate intermittently tests were made of exposure to combustion products followed by exposure to normally moist air. Under the test conditions used the iron-based steels (EI 481, 1X18H9T (1 Kh 18N9T), 3 Kh 13 and 2 Kh 13) and nickel-based steels (EI 437 B) behave similarly in combustion

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An investigation of the ...

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products of fuels containing 0.2 and 1% sulphur. When the sulphur content is increased to 1.4%, the corrosion of the iron-based steels increases quite rapidly, whilst that of the nickel-based does not. It is concluded that the combustion products of sulphurous fuels containing from 0.2-1% sulphur have practically identical corrosivity to steels based on iron and to those based on nickel. If the sulphur content is increased to 1.4-1.6% there is more corrosion. On a number of steels (for instance grades EI 481 and 2 Kh 13) the presence of low-humidity air in the combustion chamber causes the combustion products of sulphurous fuels to somewhat retard the corrosion process as compared with the products of low sulphur fuel, apparently because a protective sulphide film forms on the metal surface. Alternate action of combustion products and moist air, which corresponds to actual corrosion conditions in gas turbines, increases the corrosion of the steels by a factor of 2-3 for fuels containing 1.4-1.5%

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An investigation of the ...

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sulphur as compared with fuels containing 0.2-1% sulphur. There are 6 figures, 3 tables and no references.

Card 5/5



VORONOV, Nikolay Mikhaylovich; BLIDCHENKO, Ignatiy Fedorovich;  
GONCHAROV, Viktor Mikhaylovich; LOBANOV, Vasiliy Vasil'yevich;  
MERKUR'YEV, Gennadiy Dmitriyevich; BLAGOVIDOV, I.P., kand.  
tekhn. nauk, retsenzent; GROMOV, G.N., inzh., retsenzent;  
EMINOV, Ye.A., inzh., retsenzent; LOSIKOV, B.V., prof., red.;  
SOBAKIN, V.V., inzh., retsenzent; MEDVEDEVA, M.A., tekhn.  
red.

[Fuel oil and lubricating materials in railroad transportation]  
Neftianoe toplivo i smazochnye materialy na zheleznodorozhnom  
transporte; spravochnik. [By] N.M.Voronov i dr. Moskva, Trans-  
zheldorizdat, 1962. 322p. (MIRA 15:9)  
(Railroads--Fuel) (Railroads--Lubrication)  
(Petroleum products)

LOSIKOV, B.V., doktor tekhn.nauk, prof.; FAT'YANOV, A.D., inzh.;  
MIKULIN, Yu.V., inzh.; ALEKSANDROVA, L.A., kand.tekhn.nauk

Studying the effect of products of combustion of distillation  
sulfurous fuels on the structural materials of gas turbines.  
Energomashinostroenie 8 no.2:34-37 F '62. (MIRA 15:2)  
(Diesel fuels--Testing) (Steel--Corrosion)

VORONOV, Nikolay Mikhaylovich; BLIDCHENKO, Ignatiy Fedorovich;  
GONCHAROV, Viktor Mikhaylovich; LOBANOV, Vasiliy  
Vasil'yevich; MERKUR'YEV, Gennadiy Dmitriyevich;  
BLAGOVIDOV, I.F., kand. tekhn. nauk, retsenzent; EMINOV,  
Ye.A., inzh., retsenzent; GROMOV, G.N., inzh., retsenzent;  
LOSIKOV, B.V., prof., red.; SOBAKIN, V.V., inzh., red.;  
MEDVEDEVA, M.A., tekhn. red.

[Petroleum fuel and lubricants in railroad transportation;  
handbook] Neftianoe toplivo i smazochnye materialy na  
zheleznodorozhnom transporte; spravochnik. Moskva, Trans-  
zheldorizdat, 1962. 322 p. (MIRA 16:6)  
(Petroleum products) (Railroads--Fuel)

VENTSEL', Sergey Veniaminovich; BARABASH, M.L., kand. tekhn.  
nauk, retsenzent; LOSIKOV, B.V., doktor tekhn. nauk,  
prof., red.; PILIPENKO, Yu.P., inzh., red.;  
GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Lubrication of internal combustion engines] Smazka dvi-  
gatelei vnutrennego sgoraniia. Moskva, Mashgiz, 1963. 179 p.  
(MIRA 16:4)

(Gas and oil engines--Lubrication)

LIPSHTEYN, Rafail Aleksandrovich; CHAKHOVICH, Mikhail Isaakovich;  
LOSIKOV, B.V., prof., red.

[Transformer oil] Transformatornoe maslo. Moskva, Ener-  
giia, 1964. 317 p. (Polimery v elektroizolatsionnoi  
tekhnike, no.9) (MIRA 17:9)

ACCESSION NR: AP4017575

3/0065/64/000/003/0058/0062

AUTHOR: Losikov, B. V.; Fat'yanov, A. D.; Aleksandrova, L. A.;  
Golovistikov, I. V.; Berezina, R. M.

TITLE: Oils for gas turbine installations

SOURCE: Khimiya i tekhnol. topliv i masel, no. 3, 1964, 58-62

TOPIC TAGS: oil, oil antioxidant, antifriction additive, gas turbine  
oil, ionol, butyl phenol, pentachloro diphenyl, sovol

ABSTRACT: The purpose of the work was to find an all-purpose oil for the lubrication of both bearings and the reducer of a gas turbine. It should have low viscosity and good antioxidant and antifriction properties (no sediments formed). The choice was a transformer oil which was tested with a number of additives to provide the above properties. After extensive experiments, the authors found that the addition of ionol (4-methyl-2,6-di-tert-butylphenol) in a proportion of 0.2-0.7% increases oil stability at 170-200C and gives incomparably better results as an antioxidant than tributyl-, triphenyl- and

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ACCESSION NR: AP4017575

tricresyl phosphates (sediment reduced from 0.9 to 0.1%). It was further found that the addition of 1% sovol (pentachlorobdiphenyl), a chemically stable and fully inert compound, raises the anti-wear (antifriction) properties of the oil to the level of the MK-22 oil (critical load 45 and 50 kg, respectively). The addition of more than 2% sovol does not improve the anti-wear property. Both additives are compatible. Laboratory tests were verified by an actual turbine run. Oil for gas turbines with ionol and sovol additives is at present manufactured according to the GOST 10289-62 standard. Orig. art. has: 4 figures and 4 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 23Mar64

ENCL: 00

SUB CODE: CH, FL

NO REF SOV: 000

OTHER: 000

Card 2/2

LOSIKOV, B.V.; FAT'YANOV, A.D.; ALEKSANDROVA, L.A.; BEREZINA, R.M.

Separate quantitative determination of  $SO_2$  and  $SO_3$  in the  
exhaust gases of engines. Khim. i tekhn. topl. i masel 9 no.6:  
44-47 Je'64 (MIRA 17:7)



LOSIKOV, B.V.; FAT'YANOV, A.D.; ALEKSANDROVA, L.A.; GOLOVISTIKOV, I.V.;  
BEREZINA, R.M.

Lubricants for gas-turbine systems. Khim. i tekhn. topl. i  
masel 9 no.3:58-62 Mr'64 (MIRA 17:7)

ACC NR: AP7002731

(A, N)

SOURCE CODE: UR/0065/67/000/001/0063/0065

AUTHOR: Losikov, B. V.; Traktovenko, I. A.

ORG: none

TITLE: Additives to diesel fuels

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 1, 1967, 63-65

TOPIC TAGS: fuel additive, diesel fuel

ABSTRACT: A review of work done in the Soviet Union and elsewhere on additives to diesel fuels shows that the use of such additives improves the performance characteristics of engines. The choice of additives and their concentration depend on the physicochemical properties of the fuel and the design of the engine and its operating conditions. Of the large number of compounds which raise the cetane rating of fuels, nitrates and peroxides of various types were found to be the most effective ones. Research done at the VNII NP and NAMI showed isopropyl nitrate to be the best additive for this purpose. Because such additives raise the inflammability of diesel oil, they should be used mainly for winter and arctic grades of diesel fuel and also for some products of secondary origin. The improved VNII NP-111a additive successfully passed prolonged tests in YaAZ-204 and SMD-14 engines. Among other Soviet lubricants, the best properties were displayed by VN-13 in 0.2% concentration, which considerably im-

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UDC: 665.521.4

ACC NR: AP7002731

proved the performance characteristics of an engine operating on sulfur-containing fuel.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 020/ OTHER REF: 013

4,

Card 2/2

LOSIKOV, V.; GREBNEV, B.

On the blue track of Lake Harku. Za rul. 19 no. 11:26-27 H  
'61. (MIRA 14:12)

1. Otvetsstvennyy sekretar' Federatsii vodno-motornogo sporta  
SSSR (for Losikov).  
(Tallin—Motorboat racing)

YURASOV, R.N., kapitan 3-go ranga; LOSIKOV, V.T., kapitan-leytenant

Strengthen and increase achieved successes. Mor. sbor. 48  
no.7:18-23 J1 '65. (MIRA 18:8)

22800

18.3100 2408, 1087, 1454

S/136/61/000/005/003/008  
E021/E106

AUTHORS: Reyfman, M.B., Gribov, A.I., Dmitriyev, V.N., and  
Losikova, M.A.

TITLE: The preparation of titanium by the iodide method

PERIODICAL: Tsvetnyye metally, 1961, No.5, pp. 49-55

TEXT: The theory of the process is discussed and some results from an experiment for preparing titanium by the iodide method in apparatus of an industrial type are described. The main factors influencing the rate of reaction of the process are the temperature in the reaction chamber and the rate of migration of the molecules of gaseous titanium iodide. The temperature has a marked influence on both the rate of reaction and the character of the surface of the deposited metal. Fig.2 shows two rods of titanium formed at 1300 °C (top picture) and 1500 °C. The relation between the degree of dissociation of titanium iodide and its vapour pressure was determined from thermodynamics. Fig.3 shows this relationship (x axis - degree of dissociation; y axis - vapour pressure, in atmospheres, in the reaction vessel). At a vapour pressure of 0.009 atm the degree of dissociation is 0.1,  
Card 1/4

22800

S/136/61/000/005/003/008

The preparation of titanium by .... E021/E106

which explains why the process of dissociation at higher vapour pressures ceases. On the other hand, with a vapour pressure of 0.001 atm (corresponding to a temperature in the reaction vessel of 109 °C) the degree of dissociation is 0.9 and is sufficient for the process of thermal dissociation to occur. Tests were carried out to choose the most corrosion-resistant material for use in contact with titanium iodide and gaseous iodine. Nickel and nickel-based alloys were tried. The most resistant alloy was found to be X20H80 (Kh20N80) containing 80% nickel and 20% chromium. Industrial apparatus was constructed for the preparation of iodide titanium. It consisted of a cylindrical vessel of the Kh20N80 alloy. It was capable of producing 10 kg titanium per day. The charge of crude titanium was placed inside and the vessel was evacuated and heated to 400-450 °C. The calculated quantity of iodide was in a sealed glass flask in the roof of the vessel. The vessel was disconnected from the evacuating system when the required vacuum was obtained and the iodine allowed to enter the reaction vessel. After leaving some time for the formation of titanium iodide, an electric current was passed through a titanium wire (3 - 4 mm thick) inside the vessel and the

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S/136/61/000/005/003/008  
E021/E106

The preparation of titanium by .....

precipitation of iodide titanium began. The reaction vessel was immersed in a vessel containing water heated to 100 °C. Under these conditions a rod of iodide titanium 18-19 mm in diameter could be obtained. The iodide titanium obtained showed a decrease in metallic impurities and especially in gaseous impurities. Wire, thin strip and thin-walled tubes could be prepared from it, showing its high plasticity.

Acknowledgements are expressed to O.N. Krokhina, B.A. Kondratov and S.Kh. Ruzayeva for their participation in the work; to Ye.K. Safronov, A.A. Kuz'min, A.S. Nazarov and G.F. Ivanovskiy (all of the Scientific Research Institute), M.Ya. Smelyanskiy, Z.A. Lankin (deceased), N.I. Kharlamov and Ya.E. Gershzon (all of Tsentroprom-elektropech') for their assistance in constructing the industrial apparatus; and to L.K. Pyatibokov and I.D. Voronkin for constructing the special automatic control device.

There are 4 figures and 4 references: 1 Soviet and 3 English. The English language references are:

Ref.1: Blocher, I.M. and Campbell I.E., J.Americ.Chem.Soc., 1947, 69, 9, 2100-2101.

Card 3/4



22800

S/136/61/000/005/003/008  
E021/E106

The preparation of titanium by

Ref.2: O.I.C. Runnols and L.M. Pidgeon, J. of Metals, 1952, 4; 8; 843-847.

Ref.3: L. Quill, The chemistry and metallurgy of miscellaneous materials. Thermodynamics, 1950.

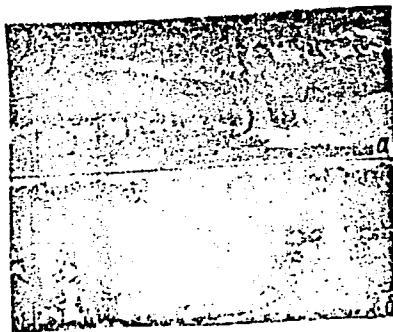


Fig.2

Card 4/4

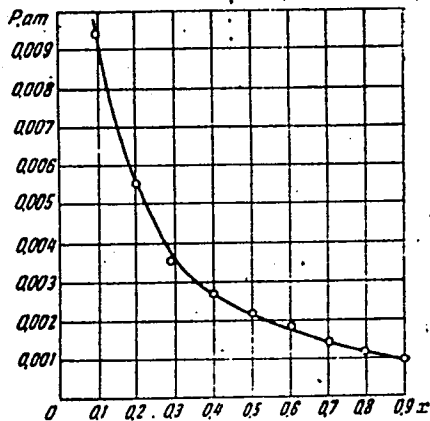


Fig.3

26510000-00000000, 2

PHASE I BOOK EXPLOITATION

SOV/5207

Vserossiyskaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov.

Primeneniye ultraakustiki k issledovaniyu veshchestva (Utilization of Ultrasonics for the Investigation of Matter) Moscow, Izd. MOPI, 1960. 267 p. 1,000 copies printed. (Series: Its Trudy, vyp. 11)

Ed. (Title page): V.F. Nozdrev, Professor and B.B. Kudryavtsev, Professor.

PURPOSE: This collection of articles is intended for physicists specializing in the physics of ultrasound.

COVERAGE: The collection of articles constitutes the transactions of the VII Conference on the Applications of Ultrasonics to the Study of Materials, which was held at the Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya. Individual articles of the collection discuss various problems in the wave mechanics of ultrasound, the absorption and the propagation mechanics of ultrasonic waves in various media, the operating principle and design of generators and receivers of ultrasonic waves, the speed of sound and methods for its determination. Other articles deal with the applications of ultrasonics to investigations of the properties of materials. No personalities are mentioned. References accompany each article.

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Utilization of Ultrasonics (Cont.)

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TABLE OF CONTENTS:

Nozdrev, V.F., and A.A. Glinskiy [MOPI imeni N.K. Krupskoy-Moscow Oblast Pedagogical Institute]. Problems of Anomalous Absorption of Ultrasonic Waves in Liquids	3
Kwiek, M., Z. Losińska-Prusowa, and S. Prus [University of Poznań, Poland]. Application of the Kinetic-Molecular Theory of Gases to the Problem of Waves of Finite Amplitude	17
Zipir, A.D., and V.F. Yakovlev [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Elementary Theory of the Crystal Transformer Operating as a Receiver	29
Kal'yanov, B.I. [Tambovskiy pedinstitut-Tambov Pedagogical Institute]. Some Problems of the Theory of Crystal Transformers	41
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-Card 2/7

KUSTOVA, A.I.; LOSINSKAYA, N.L.

Injurious fungal and insect fauna of the "Nesvizh" Sanatorium  
Park. Sbor. nauch. rab. TSES no.1:122-125 '60.

(MIRA 14:10)

(Nesvizh District--Trees--Diseases and pests)

KUSTOVA, A.I.; LOSINSKAYA, N.L.

Injurious fungi and insects of the Botanical Garden of the Academy  
of Sciences of the White Russian S.S.R. Sbor. bot. rab. Bel. otd.  
VBO no.2:205-210 '60. (MIRA 15:1)

(White Russia--Fungi, Phytopathogenic)  
(White Russia--Insects, Injurious and beneficial)

IOSINSKAYA, N.L.

Principal representative of the injurious insect fauna of trees  
and shrubs in the Central Botanical Garden of the Academy of  
Sciences of the White Russian S.S.R. Sbor. nauch. rab.  
TSBS no.1:114-121 '60. (MIRA 14:10)

(Minsk--Insects, Injurious and beneficial)

(Trees-- Diseases and pests)

(Shrubs-- Diseases and pests)

LOSINSKAYA, N.L.

Lepidoptera in the ornamental plantations of the Central Botanical  
Garden of the Academy of Sciences of the White Russian S.S.R.  
Sbor. nauch. rab. TSBS no.2:180-193 '61. (MIRA 15:7)  
(Minsk--Lepidoptera)

STREMETSKEY, G.F. (Kiyev); LOSINSKIY, A.J. (Kiyev)

Methodology of the electronoscopic study of allantoic cultures of  
the influenza virus. Sbor.nauch.trud. Inst.infek.bol. no.4:42-45  
'64. (MIRA 18:6)



LUKASZEWICZ-DANCOWA, Danuta; LOSIEWSKI, Zbigniew

A case of pseudohypoparathyroidism in a 8 1/2-year-old girl.  
Pol. tyg. lek. 19 no.2:65-67 Ja '64.

1. Z Kliniki Neurologii i Neuroinfekcji Dzieciacych Instytutu  
Matki i Dziecka w Warszawie (kierownik: dr med. Danuta  
Lukasiewicz-Dancowa).

SHAMRAY, Ye.F. [Shamrai, IE.F.]; LOSITSKAYA, V.M. [Losyts'ka, V.M.];  
DVORNIKOVA, P.D.

Effect of galascorbin on glycolysis. Ukr. biokhim. zhur. 33 no.5:  
699-708 '61. (MIRA 14:10)

1. Department of Biochemistry of Kiyev Medical Institute of the  
Institute of Biochemistry of the Academy of Sciences of the Ukrainian  
S.S.R., Kiyev.  
(GLYCOLYSIS) (GALASCORBIN)

LOSINSKI, T.

Preparation of hematoxylin stained antigen for ring test in cattle  
brucellosis. Med.wet. 7 no.4:224-228 Apr 1951. (CIML 20:9)

1. Of the Regional Veterinary Institute in Poznan (Head--Henryk  
Golaszewski, M.D.) and of the Institute of Agricultural Veterinary  
Medicine of Poznan University (Head--Prof. Stanislaw Runge, M.D.).

LOSINSKI, T.  
CA

28

Physicochemical properties of molasses. *Indust. Farm. Sci. (Zaklad Hig. Weterynar., Poznan, Poland)* *Med. Weterynar.* 7, 170-3(1951). Beet molasses (from Poznan area refineries) contain 50% sugar, 20% nitrogenous and org. compds. (I), 10% inorg. salts (II), and 20% H<sub>2</sub>O. I contains dextrins, lactic acid, betaine, amino acids (8% of total). Half of II are K salts. Unfidd. molasses remains stable for a no. of yrs. Therapeutic applications are discussed, especially in reference to treating obstruction of the cecum and colon in the horse. I. Z. Roberts

CHWOJNOWSKI, A.; LOSINSKI, T.; DZIUBEK, T.; WEDRYCHOWICZ, St. (Poznan)

Milk ring test of the milk of cows immunized in adult age with  
strain 19. Roczn. nauk roln. wet 70 no.1/4:213-215 '60.  
(EEAI 10:9)

(Milk) (Cattle) (Immunity) (ABR test)

NEYMAN, Kazimierz; LOSINSKI, Tadeusz.

Brucellosis in workers of collective farms in the Poznan region.  
Przegl.epidem.Warsz. 9 no.2:111-114 1955.

1. Z Wojewodzkiej Stacji Sanitarno-Epidemiologicznej i z Wojewodzkiego Zaklad Higieny Weterynaryjnej w Poznaniu.

(BRUCELLOSIS, epidemiology,

in Poland, in agriculturals workers)

(AGRICULTURES,

brucellosis in agricultural workers in Poland)

LOSINSKIY, M. G.

B

A New Method of Surface Hardening of Steel by High-Frequency Induction Heating Under Water. M. G. Losinsky. *Bulletin of the Academy of Sciences of U.S.S.R. (Section of Technical Science)*, no. 4, 1946, p. 619-624.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

LOSITSKAYA, I. F.

14(5)

SOV/7-59-2-9/14

AUTHORS: Gulyayeva, L. A., Lositskaya, I. F.

TITLE: Determination of the Germanium Content of Petroleums of the Soviet Union (Issledovaniye soderzhaniya germaniya v neft'yakh Sovetskogo Soyuza)

PERIODICAL: Geokhimiya, 1959, Nr 2, pp 152-158 (USSR)

ABSTRACT: The methods developed by V. A. Nazarenko et al. (Ref 1) (Giredmet) were applied to the determination of germanium: petroleum was incinerated,  $\text{GeCl}_4$  distilled off, and determined colorimetrically by means of phenyl fluorone. Errors of the colorimetric method are  $1 - 2 \cdot 10^{-6}\%$ , but in this case are higher due to losses incurred during incineration (Table 1). Average germanium contents in the most important petroleum deposits of the USSR are (in g/t):

Sakhalin	0.015 (Table 2)	Tatariya	0.053 (Table 6)
Azerbaydzhan	0.063 (Table 3)	Kuybyshevskaya	
Fergana	0.034 (Table 4)	oblast'	0.033 (Table 8)
Bashkiriya	0.044 (Table 5)	Orenburgskaya	
		oblast'	0.150 (Table 7)

Card 1/2 The highest germanium contents determined were (in g/t):



SOV/7-59-2-9/14

Determination of the Germanium Content of Petroleum of the Soviet Union

Azerbaydzhan	0.32	Tatariya	0.16
Fergana up to	0.26	Orenburgskaya oblast'	0.69

There are 8 tables and 1 Soviet reference.

ASSOCIATION: Institut nefiti AN SSSR, Moskva  
(Institute of Petroleum AS USSR, Moscow)

SUBMITTED: July 22, 1958

Card 2/2

LOSITSKAYA, I.F.

Determination of the salinity of sedimentary basins based on the  
chlorine content of sediments. Trudy Inst. geol. i razrab. gor.  
iskop. 1:292-307 '60. (MIRA 14:1)  
(Rocks, Sedimentary) (Chlorine)

VAGNER, L.B.; LOSITSKAYA, V.A., professor, direktor.

Effect of wheat bran extract in increasing body weight. Vop.pediat. 21 no.4:  
48-50 J1-Ag '53. (MLSA 6:10)

1. Kuybyshevskiy oblastnoy nauchno-issledovatel'skiy institut okhrany materinstva i detstva. (Cereals as food) (Body weight)

LOSITSKAYA, V.A., professor.

Supplementary pelvimetry. Akush.i gin. no.1:18-21 Ja-Y '54. (MLRA 7:6)

1. Iz Kuybyshevskogo oblastnogo nauchno-issledovatel'skogo instituta  
okhrany materinstva i detstva. (Pelvis)

LOSITSKAYA, V.O. [Losyts'ka, V.O.], prof.

Atonic hemorrhage in labor and its control. Ped. akush. i gin.  
22 no. 1:36-37 '60. (MIRA 13:8)

1. Kafedra akusherstva i gienkologii (zav. - prof. V.O.  
Lositskaya) Zaprerozhskogo instituta usovershenstvovaniya vrachey  
(direktor - kand.med.nauk V.T. Karpukhin).  
(HEMORRHAGE, UTERINE)

L 46010-66 EWT(1) GW

ACC NR: AR6029454

SOURCE CODE: UR/0169/66/000/005/D017/D017

AUTHOR: Andreyeva, R. I.; Gdalevskaya, Ts. M.; Lositskaya, Ye. P.;  
Klitochenko, T. I.; Marchenko, A. P.; Razumenko, G. F.; Sokolova, N. T.;  
Chayka, V. G.

TITLE: Compilation of composite seismic maps of the southeastern part of the  
Dnepr-Donets basin

SOURCE: Ref. zh. Geofizika, Abs. 5D115

REF SOURCE: Tr. Ukr. n.-i. geologorazved. in-t, vyp. 14, 1965, 132-139

TOPIC TAGS: Dnepr basin seismic map, Donetsk basin seismic map

ABSTRACT: A second interpretation is made of seismic data obtained for the southeastern part of the Dnepr-Donets basin, using supplementary data obtained in drillings. Structural maps to the scale of 1:50,000 and 1:100,000 are plotted for four horizons, from the Cenomanian to the Lower Permian. Iso-pachous line maps, plotted on the basis of data obtained in seismic exploration, are also discussed. A detailed analysis is made of the tectonic structure of the Upper Paleozoic, Mesozoic, and Cenozoic stages on the basis of the above-mentioned

Card 1/2

UDC: 550.834

L 46010-66

ACC NR: AR6029454

maps. A regional subdivision is made of the territory from the point of view of natural gas and petroleum deposits. A. Titkov. [Translation of abstract] [SP]

SUB CODE: 08/

Card 2/2 *mt*

LOSITSKIY, K. B.

Lositskiy, K. B. - "Belorussian SSR groves, zones of mixed forests and the northern forest-steppes," Les Khoz-vo, 1948, No. 3, p. 35-40

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).



LOSITSKIY, K. B.

Yurkevich, I. D.

Prof. I. D. Yurkevich's useful book "Oak forests of the White Russian S. S. R. and their restoration. " Reviewed by K. B. Lositskiy. Les. khoz. 6 no. 1, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

1. LOSITSKIY, K. B.
2. USSR (600)
4. Pine
7. Yields of classes in pine plantings according to forest type. Les. khoz. 6  
No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

LOSITSKIY, K. B.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

<u>Name</u>	<u>Title of Work</u>	<u>Nominated by</u>
Tyurin, A. V.		
Zhukov, A. B.		
Ivanenko, B. I.		
<u>Lositskiy, K. B.</u>	"Investigation of Oak	All-Union Scientific Research
Kharitonovich, F. N.	Forests of the USSR	Institute of Forestry
Napalkov, N. V.	and Measures for Cultivating them"	

SO: W-30604, 7 July 1954

USSR/Forestry - Forest Cultivation.

K.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15376

Author : K.B. Lositskiy

Inst : -

Title : Several Regulatities in the Appearance and Development of Self-Seeding in Oak Dependent on Geographic Environment.  
(Nekotoryye zakonomernosti v poyavlenii i razvitii samoseva duba v zavisimosti ot geograficheskoy sredy).

Orig Pub : Lesnoye kh-vo, 1957, No 4, 17-23

Abstract : Research is described which was conducted in 1947-1951 in the ripe oak forests of eight geographical points in the mixed wood and forest steppe zones. The oak's ability to bear fruit annually under favorable conditions is indicated in woods having a fullness of its top layer of 0.6 - 0.7. It was ascertained that in the mixed forest zone the best conditions for renewal

Card 1/3

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USSR/Forestry - Forest Cultivation.

K.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15376

are slight elevations in half relief, significant participation of the oak in the wood, a specific density of the underwood, mixed grass cover (goutweed, chickweed, etc), the thinning of the wood, an absence of pasturage. The most efficient method of bettering the quality and boosting the quantity of self-seeding is by felling the underwood and the second layer. In Moscow Oblast' with a canopy completeness of 1.0, shoots at 38.2% were obtained from a number of sowed acorns at 0.6 - 61.5%. The reverse of this was observed in regions with inadequate moisture (Shipov Forest) in connection with the drying out of the top soil horizons; the canopy completeness was 0.8 to 43.2% at 0.5 - 41.1%. Felling the underwood was effective only in forest plantings with a high degree of completeness, its advantage action lasted only 2 years. Excessive thinning led to the damaging of self-seeders through the early frosts.

Card 2/3

BUKSHTYNOV, Aleksey Danilovich; LOSITSKIY, K.B., otv.red.; RYAUZOVA,  
N.F., red.; PECHENKIN, I.V., tekhn.red.

[Forest resources of the U.S.S.R. and the world] Lesnye resursy  
SSSR i mira. Moskva, Izd-vo M-va sel'.khoz.SSSR, 1959. 60 p.  
(MIRA 13:6)

1. Chlen-korrespondent Vsesoyuznoy ordena Lenina akademii  
sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Buxhtynov).  
(Forests and forestry)

LOSITSKIY, K. B. Dr. Agri Sci — (diss) "Forest-reduction  
process in the oak forests of the European part of the USSR,"  
Moscow, 1960, 46 pp, 150 cop. (Institute of Forestry and Wood Pro-  
cessing, Siberian Department, AS USSR) (KL, 42-60, 115)

VASIL'YEV, P.V., prof., doktor ekon. nauk; PONOMAREV, A.D.; SOLDATOV, A.G.,  
kand. sel'khoz. nauk; MOTOVILOV, G.P., doktor sel'khoz. nauk;  
NEVZOROV, N.V., kand. ekon. nauk; LOSITSKIY, K.B., kand. sel'khoz.  
nauk; RODIONOV, A.Ya., kand. sel'khoz. nauk; CHARKINA, A.P., kand.  
sel'khoz. nauk; LUTSEVICH, A.A., kand. sel'khoz. nauk; KOZHEVNIKOV,  
M.G., dots.; ALEKSEYEV, P.V., kand. sel'khoz. nauk; ZORIN, A.V.,  
aspirant; BARANOV, N.I., kand. sel'khoz. nauk [deceased]; NAUMENKO,  
I.M., prof., doktor sel'khoz. nauk; IL'IN, A.I., kand. sel'khoz. nauk;  
MOISEYENKO, F.P., kand. biol. nauk; ZAKHAROV, V.K., prof., doktor sel'-  
khoz. nauk; GECHIS, Yu.P., starshiy nauchnyy sotr.; BUTENAS, Yu.P.,  
kand. sel'khoz. nauk; BUBLIS, K.A., aspirant; KALININ'SH, A.Ya., kand.  
sel'khoz. nauk; ZVIYEDRIS, A.I., kand. sel'khoz. nauk; SUKACHEV, V.N.,  
akad. red.; ZHUKOV, A.B., prof., red.; PRAVDIN, L.F., prof., red.;  
MAKAROVA, L.V., red. izd-va; LOBANKOVA, R.Ye., tekhn. red.

[Problems of increasing forest productivity in four volumes] Pro-  
blemy povysheniia produktivnosti lesov v chetyrekh tomakh. Moskva,  
Goslesbumizdat. Vol.4. [Economic problems of increasing forest  
productivity and accelerating ripening and cutting ages] Ekonomicheskie  
voprosy povysheniia produktivnosti lesov, vozrasty spelosti i vozrasty  
rubok. 1961. 253 p. (MIRA 15:1)

1. Akademiya nauk SSSR. Institut lesa. 2. Nachal'nik Glavnoy inspektsii  
po lesnomu khozyaystvu i polezashchitnomu lesorazvedeniyu Ministerstva  
sel'skogo khozyaystva SSSR (for Ponomarev).

(Forests and forestry—Economic aspects)



LOSITSKIY, Kazimir Boleslavovich; KAZAKOVA, Ye.D., red.; BALLOD, A.I.,  
tekhn. red.

[Regeneration of oak forests] Vosstanovlenie dubrav. Mo-  
skva, Sel'khozizdat, 1963. 358 p. (MIRA 16:7)  
(Oak) (Reforestation)

ANUCHIN, N.P., prof., otv. red.; BRAGLAVSKAYA, M.M., red.;  
DERYABIN, D.I., kand. sel'khoz. nauk, red.; ZHELEZNOV,  
G.F., kand. sel'khoz. nauk, red.; IVANNIKOV, S.P., kand.  
sel'khoz. nauk, red.; IVANOV, G.G., red.; LARYUSHIN, G.A.,  
kand. tekhn. nauk, red.; LOSITSKIY, K.B., doktor sel'khoz.  
nauk, zam. otv. red.; MIRONOV, V.V., kand. sel'khoz. nauk,  
red.; RODIONOV, A.Ya., kand. sel'khoz. nauk, red.;  
TRUBNIKOV, M.M., kand. ekon. nauk, red.; CHEVEDAYEV, A.A.,  
kand. sel'khoz. nauk, red.; SHUMAKOV, V.S., kand. sel'khoz.  
nauk, red.; YURGENSON, P.B., doktor biol. nauk, red.; TROPIN,  
I.V., kand. sel'khoz. nauk, red.

[Studying the performance of new machinery in silvicultural  
work; scientific papers] Issledovanie rabochikh protsessov  
novykh mashin na lesokul'turnykh rabotakh; nauchnye trudy.  
Moskva, Izd-vo "Lesnaia promyshlennost'," 1964. 111 p.

(MIRA 17:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut  
lesovodstva i mekhanizatsii lesnogo khozyaystva.

LOSITSKIY, Kazimir Boleslavovich; CHARKINA, Anastasiya Pavlovna

[Classification tables for black poplar] Sortimentnye  
tablitsy dlia osokoria. Moskva, Lesnaia promyshlennost',  
1965. 75 p. (MIRA 18:11)

TINOFEYEV, Vladimir Petrovich; LOSITSKIY, A.B., red.

[Nature and plantations of the Experimental Forest Tract of the Timiriazev Agricultural Academy during the past 100 years] Priroda i nasazhdeniia Lesnoi opytnoi dachi Timiriazevskoi sel'skokhoziaistvennoi akademii za 100 let. Moskva, Lesnaia promyshlennost', 1965. 167 p. (MIRA 18:12)

LOSITSKIY, Kazimir Boleslavovich; CHARKINA, Anastasiya Pavlovna

[Volume and taper tables for black poplar] Tablitsy ob'ema  
i sbega stvolov osokoria. Moskva, Lesnaia promyshlennost',  
1965. 37 p. (MIRA 19:1)

LOSITSKIY, N.T.

SUBJECT: USSR/Welding 135-1-12/14

AUTHORS: Lositskiy, N.T., Engineer, and Dushenin, N.I., Engineer.

TITLE: Electric rivet-welding on the semi-automatic welding machine  
ПВ-5. (Svarka elektrozaklepkami poluavtomatom ПВ-5).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, # 1, pp 28-29 (USSR)

ABSTRACT: The welding machine ПВ-5 (design is described in detail) is found to be the best suitable welder for rivet-welding under flux, which is often practical in shipbuilding for joining thin metal structures. The welder requires no expensive fixtures, works with the common industrial welding equipment. It is equipped with a mechanical arc dosator which switches the arc on and off and consists of a normally open switch and a cam which is mounted on the drive shaft of the feed mechanism. The cam turns with the shaft and closes the switch once in a full turn. The cam is made of insulating material.

After covering the work face with flux, the operator only has to push the start button, and to let go when the arc is ignited. The welding process continues automatically until the turning cam comes into the position at which it closes the gap in the

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TITLE:

Electric rivet-welding on the semi-automatic welding machine  
ЭВ-5. (Svarka elektrozaklepkami poluavtomatom ЭВ-5).  
switch. The operator has then only to put the holder on  
the next welding spot and to repeat the process. 135-i-12/14

The authors' plant has been applying this method for two years  
in welding superstructures and agricultural equipment. The  
method raises operating efficiency 4-fold as compared with  
the previously practiced semi-automatic welding with intermit-  
tent seam, and 2-2.5-fold as compared with the electric pistol-  
riveter welding. It guarantees high quality of weld, regard-  
less of operator's skill, and eliminates holding-down devices.

The article contains 1 photograph, 1 diagram, and 4 charts  
(welding regimen). Engineer G.A. Slavin is referred to as  
collaborator.

INSTITUTION: Not stated.

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress

Card 2/2

L 51447-65 EWT(m)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)  
H/W/JD/HM  
ACCESSION NR: AP5009676

UR/0135/65/000/004/0033/0034  
621.791.042.4:621.747.583.2

AUTHOR: Lositskiy, N. T. (Engineer)

TITLE: Electrodes for welding out casting defects in high-alloy structural steel

SOURCE: Svarochnoye proizvodstvo, no. 4, 1965, 33-34

TOPIC TAGS: structural steel casting, casting defect welding, welding electrode, high alloy steel/ KDLVT steel, VSV-1 electrode

ABSTRACT: New electrodes, designated VSV-1, were developed to replace the expensive and low-quality production electrodes (cast rods of KDLVT,  $\phi = 20 - 25$  mm, hot-forged and machined to  $\phi = 6 - 7$  mm, then dip coated with UONI-13/55) used previously to weld out casting defects in high-alloy extra-hard KDLVT structural steel. VSV-1 electrodes have cores of welding wire Sv-08KhNZM and were coated with a special base coating (composition given). The test results, which are tabulated, were satisfactory and the new electrodes are now in industrial use. Orig. art. has: 4 tables and 2 figures.

ASSOCIATION: None

Card 1/2



L 51447-65

ACCESSION NR: AP5009676

SUBMITTED: 00

ENCL: 00

SUB CODE: IE, MM

NO REF SOV: 001

OTHER: 000

*me*  
Card 2/2

LOSITSKIY, N.T., inzh.

Electrodes for welding-up casting defects of complex alloy  
structural steel. Svar. proizv. no.4:33-35 Ap '65.

(MIRA 18:6)

LOSITSKIY, V. A., Physician

"Data on the Course of Pregnancy, Childbirth and the Postnatal Period in Cases of Malaria." Sub 14 Apr 47, Second Moscow State Medical Inst imeni I. V. Stalin

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 18 Apr. 55

LOSITSKIY, V.G., mayor med.sluzhby

Bronchiectasis in soldiers and sergeants serving a single  
enlistment as revealed by hospital records. Voen.med-zhur.  
no.11:23-28 N'56 (MIRA 12:1)  
(BRONCHIECTASIS)  
(SOLDIERS--DISEASES AND HYGIENE)

LOSITSKIY, V.G., mayor meditsinskoy sluzhby

Diagnostic value of the reaction of thermocoagulation in the blood serum in pulmonary cancer. Voen.-med. zhur. no.8:84 Ag '61.

(MIRA 15:2)

(BLOOD\_\_COAGULATION) (LUNGS\_\_CANCER)

LOSITSKIY, V.G. (Major of the Medical Service)

"The diagnostic value of the heat coagulation reaction of blood serum in the case of cancer of the lung."

Voyenno-Meditsinskiy Zhurnal, No 8, Aug 1961

LOSITSKIY, V.G., podpolkovnik meditsinskoy sluzhby

Chronic focal inflammatory processes in the lungs caused by  
acute pneumonia. Voenn.-med. zhurn. no.2:44-47 '65.  
(MIRA 18:11)

REF(s)/EPA(s)-2/EWP(s)/EWT(m)/T Po-L/Pr-A/PS-A RM/RM

ACCESSION NR: AP5017127

UR/0198/65/001/006/0092/0096

AUTHORS: Gumenyuk, V. S. (Kiev); Kritsuk, A. A. (Kiev); Lositskiy, V. I. (Kiev) 43

TITLE: Effect of temperature on mechanical properties of fiberglass reinforced plastics 38 B

SOURCE: Prikladnaya mekhanika, v. 1, no. 6, 1965, 92-96

TOPIC TAGS: fiberglass, stress load, mechanical property, yield strength, temperature dependence, Poisson coefficient, compression strength, elasticity modulus, tensile strength/ GMS 50 machine, EFB 4 epoxy, RM 30 machine, EF 32 301 Textolite

ABSTRACT: The mechanical properties of several fiberglass reinforced plastics were investigated under normal and elevated temperature conditions. The mechanical tests included compression, tension, and impact deflection between temperatures of 233 and 423K. The unidirectional specimens were tension tested in a GMS-50 machine and the elasticity, in 30-ton universal machine RM-30. The specimens were small in size, averaging 10 x 10 x 15 mm and 15 x 15 x 40 mm. Strain measurements were made by wire strain gauges and by inductive detectors. The bonding agents used were epoxy-phenolics EFB-4. The test results are given in tabular as well as in

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L 61057-65

ACCESSION NR: AP5017127

5

graphic form. The first table lists the properties of unidirectional fiberglass reinforced plastics and the second, the properties of glass laminates. Analytic expressions are quoted for yield strength, elasticity modulus, and Poisson's coefficient for the fiberglass reinforced plastic specimens. The results show that under elevated temperatures the tensile strength decreases slightly but the compressive strength falls sharply--by about 10% of its value at the 293K temperature. Orig. art. has: 4 figures, 3 formulas, and 2 tables.

ASSOCIATION: Institut mekhaniki, AN UkrSSR (Institute of Mechanics, AN UkrSSR)

SUBMITTED: 04 Oct 64

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

cc  
Card 2/2

LOSITSKIY, V.L., mayor meditsinskoy sluzhby

A study of hypertensive disease in young people. Voen.med.zhur. no.12:  
23-28 D '56. (MIRA 10:3)

(HYPERTENSION, statist.

in young soldiers in Russia)

(ARMED FORCES PERSONNEL, dis.

hypertension in young soldiers in Russia)

*Lositskiy, V.V.*

BRICHKIN, A.V.; LOSITSKIY, V.V.

Organization of boring and blasting operations in low productivity  
strip mining. Trudy Inst. gor. dela AN Kazakh. SSR 1:62-68 '56.  
(Boring) (Blasting) (MIRA 11:1)

LOSITSKIY, V. V.  
YERGALIYEV, A. Ye.; LOSITSKIY, V. V.

Mining lode deposits in the Altai. Trudy Alt. GIMNII AN Kazakh. SSR  
no. 5:34-46 '57. (MIRA 11:4)

(Altai Mountains--Mining engineering)

LOSITSKIY, V.V.  
SUBJECT: USSR/Mining

127-10-21/24

AUTHOR: Lositskiy, V.V.

TITLE: Large-Scale Blasts for Rock Ejection in Quarries of the  
Belogorsk Combine (Massovyye vzryvy na vybros na kar'yerakh  
Belogorskogo kombinata)

PERIODICAL: Gornyy Zhurnal, 1957, # 10, p 76 (USSR)

ABSTRACT: Removing overburden by explosives may be economically expedient for small open mines, where the application of complicated equipment is very expensive.

In 1955, in one of the deposits of the Belogorsk Combine, consisting of an 8 to 10 m pegmatite vein, a considerable part of the overburden was removed by a large-scale blast. The total weight of the charges was 37 tons. They were exploded simultaneously by means of a detonating fuse. The volume of the blasted rock amounted to about 15,000 cu m of which about 10,000 cu m were ejected beyond the outlines of the crater.

In another deposit, the large-scale blast ejected 145,000 cu m of rocks by exploding 327 tons of ammonite. About 60,000 cu m of rocks were ejected beyond the outlines of the open mine.

Card 1/2

127-10-21/24

TITLE: Large-Scale Blasts for Rock Ejection in Quarries of the  
Belogorsk Combine (Massovyye vzryvy na vybros na kar'yerakh  
Belogorskogo kombinata)

The article contains 2 figures.

ASSOCIATION: Altai Mining-Metallurgical Institute (Altayskiy gorno-metallur-  
gicheskiy institut)

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress.

Card 2/2

BRICHKIN, Aleksandr Vasil'yevich, LOSITSKIY, Vladimir Viktorovich,;  
SEменов, M.N., red.; ROROKINA, Z.P., tekhn. red.

[Small open pit method in ore mining] Razrabotka mestorozhdenii  
nebol'shimi kar'erami. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi  
SSR, 1958. 186 p. (MIRA 11:11)  
(Strip mining)

YERQALIYEV, A.Ye.; LOSITSKIY, V.V.

Open-cut mining of rare metal deposits in the Altai Mountains.  
Trudy Alt.GMNI AN Kazakh.SSR 6:86-105 '58. (MIRA 12:1)  
(Altai Mountains--Metals, Rare and minor) (Strip mining)



IOSITSKIY, V.V.

Determining the industrial minimum and open pit boundary limits  
for certain Altai deposits. Trudy Alt. Gornii AN Kazakh. SSR no.7:  
174-181 '58. (MIRA 12:7)

(Altai Territory--Strip mining)  
(Mining engineering--Costs)

LOSITSKIY, V.V.; PAK, S.V.

Principle of the monetary valuation of deposits as applicable  
to the choice of a mining system. Trudy Alt. GONII AN Kazakh.  
SSR 9:153-160 '60. (MIRA 14:6)

1. Altayskiy gornometallurgicheskiy nauchno-issledovatel'skiy  
institut AN Kazakhskoy SSR.  
(Mining industry and finance)

LOSITSKIY, V.V.; MAKAREVICH, V.F.:

Photoplanimetric method of determining the completeness of rock  
crushing in open pits. Trudy Alt. GNMII AN Kazakh. SSR 10:  
120-139 '61. (MIRA 14:9)  
(Photography--Scientific applications) (Rocks--Analysis)  
(Blasting)

LOSITSKIY, V.V.; PAK, S.V.

Selection of the method of developing the Nikolayevka deposit.  
Trudy Alt. GIMNII AN Kazakh. SSR 13:32-39 '62. (MIRA 16:3)  
(Altai Mountains--Mining engineering)